

WHAT IS CLAIMED IS:

15. An apparatus, comprising:
a pumping plate having a skirt, wherein the skirt contains a plurality of holes and a wafer access slot.
16. The apparatus of claim 15, wherein the wafer access slot is open at an edge of the skirt.
17. The apparatus of claim 15, wherein the plurality of holes are through holes.
18. The apparatus of claim 15, further comprising:
a process chamber;
a slit valve; and wherein the pumping plate is positioned in the process chamber, the wafer access slot is adjacent to the slit valve, and the plurality of holes have an axial height approximately equal to an axial height of the slit valve.
19. The apparatus of claim 18, wherein the plurality of holes are at the same axial location as the slit valve.
20. The apparatus of claim 18, wherein the plurality of holes have a hole axial height-to-hole width ratio of approximately greater than or equal to one.
21. The apparatus of claim 16, wherein a total area of the plurality of holes is approximately equal to an area of the slit valve where the slit valve opens to an interior of the process chamber.
22. The apparatus of claim 15, wherein the pumping plate is capable of maintaining a temperature approximately below 250°C , $\pm 30^{\circ}\text{C}$, when a susceptor heater temperature is in the range of approximately $550 - 800^{\circ}\text{C}$.

23. The apparatus of claim 15, wherein the plurality of holes are uniformly spaced.

24. The apparatus of claim 15, wherein the plurality of holes are non-uniformly spaced.

25. The apparatus of claim 15, wherein the plurality of holes are comprising more than one shape.

26. The apparatus of claim 25, wherein the more than one shape of the plurality of holes is chosen from the group consisting of circle, ellipse, rectangle, square, and non-uniform curve.

27. An apparatus, comprising:
a wafer process chamber;
an local area in the interior of the wafer process chamber that reflects heat less than the remainder of the interior;
a body installed within the interior that reflects heat non-symmetrically such that when aligned with the local area, the body thermally compensates for the lower heat reflection by the local area.

28. The apparatus of claim 27, wherein the local area is a slit valve and body is a skirt having a plurality of holes.

29. The apparatus of claim 28, further comprising:
a susceptor;
a susceptor heater;
a blocking plate; wherein the susceptor is heated with heat conducting to the surfaces of the susceptor and where as a result of the location of the plurality of holes and a skirt shape, the skirt absorbs radiated heat non-uniformly to thermally compensate for the reduced heat reflection from the slit valve and provides a uniform thermal boundary around the susceptor.

30. The apparatus of claim 28, further comprising the skirt having a wafer access slot that is open at the aft end of the skirt such that the overall pumping plate temperatures during processing are uniform.

31. The apparatus of claim 28, further comprising a short skirt such that the overall pumping plate temperatures are reduced.

32. The apparatus of claim 29, wherein the plurality of holes are shaped to improve the uniform thermal boundary around the susceptor.

33. The apparatus of claim 32, wherein the plurality of holes have a plurality of shapes.

34. An apparatus comprising:
a process chamber;
a susceptor;
a pumping plate;
a skirt; and
means for creating a uniform boundary around the susceptor by compensating for local heating effects within the process chamber.

35. The apparatus of claim 34, further comprising:
means for reducing the temperatures within the pumping plate.

36. The apparatus of claim 35, further comprising:
means for providing temperature uniformity with the pumping plate.

37. The apparatus, comprising:
a circular susceptor;
a face plate and a blocker plate positioned above the susceptor;
a susceptor heating mechanism;
a slit valve;
a pumping plate;

a pumping plate skirt having a plurality of through holes; and
a wafer access slot within the pumping plate skirt that is open at an edge
of the pumping plate skirt.

a shortened length of the skirt to reduce the temperature profile within the
pumping plate during processing.

38. The apparatus of claim 37, wherein the plurality of through holes in the
skirt are positioned to provide temperature uniformity during processing.

39. The apparatus of claim 37, wherein the skirt is a short skirt.

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